## ABSTRACT Phthalocyanines And Their Use In Ink-Jet Printers

## 5 A composition comprising:

(a) a major dye component which is a mixture of phthalocyanine dyes of Formula (1) and salts thereof:

$$MPc \underbrace{ \left( SO_3H \right)_x}_{ \left( SO_2NR^1R^2 \right)_y}$$
 
$$\underbrace{ \left( SO_2NR^3R^4 \right)_z}_{ \left( SO_2NR^3R^4 \right)_z}$$

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## Formula (1)

wherein:

M is Cu or Ni;

Pc represents a phthalocyanine nucleus of formula

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$$\beta \xrightarrow{\alpha} N \xrightarrow{\alpha} \beta \xrightarrow{\alpha} \beta$$

$$N \xrightarrow{N} N \xrightarrow{N} N \xrightarrow{\alpha} \beta$$

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R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> independently are H or optionally substituted C<sub>1-4</sub>alkyl;

R<sup>4</sup> is optionally substituted C<sub>1-4</sub>-hydroxyalkyl;

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x is 0.1 to 3.8;

y is 0.1 to 3.8;

z is 0.1 to 3.8;

the sum of (x+y+z) is 4;and

the substituents, represented by x, y and z, are attached to a  $\beta$  position on the phthalocyanine ring; and

(b) a liquid medium which comprises water, water and an organic solvent or an organic solvent free from water. Also novel dyes, ink-jet printing processes, printed images, printers and cartridges.